



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.               | CONFIRMATION NO.       |
|--|-------------|----------------------|-----------------------------------|------------------------|
| 09/889,269   | 03/05/2002  | Tadahiro Ohmi        | 8075-1055                         | 2418                   |
| 466 7590 05/12/2009<br>YOUNG & THOMPSON<br>209 Madison Street<br>Suite 500<br>ALEXANDRIA, VA 22314 |             |                      | EXAMINER<br>CHEVALIER, ALICIA ANN |                        |
|  |             |                      | ART UNIT<br>1794                  | PAPER NUMBER           |
|  |             |                      | MAIL DATE<br>05/12/2009           | DELIVERY MODE<br>PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

## Application No.

09/889,269

## Applicant(s)

OHMI ET AL.

## Examiner

ALICIA CHEVALIER

## Art Unit

1794

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 5,6,9,13-16 and 18-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5,6,9,13-16 and 18-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/C)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

### **RESPONSE TO AMENDMENT**

1. Claims 5, 6, 9, 13-16 and 18-21 are pending in the application, claims 1-4, 7, 8, 10-12 and 17 have been cancelled.
2. Amendments to the claims, filed on February 2, 2009, have been entered in the above-identified application.

### **WITHDRAWN REJECTIONS**

3. The 35 U.S.C. §103 rejection of claims 5, 6, 9, 14-16 and 18-21 as over Carbo et al. (US Patent No. 4,507,339) in view of Uchida et al. (US Patent No. 4,248,676), made of record in office action mailed October 1, 2008, pages 2-4, paragraph #5 has been withdrawn due to Applicant's amendment in the response filed February 2, 2009.

### ***REJECTIONS***

4. **The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.**

### ***Claim Rejections - 35 USC § 103***

5. Claims 5, 6, 9, 13-16 and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carbo et al. (U.S. Patent No. 4,507,339) in view of Uchida et al. (U.S. Patent No. 4,248,676) and Ohmi (US Patent No. 5,656,099).

Carbo discloses a structure, article comprising a metallic material with a matte surface (*col. 4, lines 64-67*) and a chromium-oxide passivation film (*chromium/chromium oxide surface treatment*) disposed on the metallic material surface (*col. 2, lines 20-23*).

Carbo fails to disclose that the matte surface of the metallic material has a surface roughness (Ra) not more than 1.5  $\mu\text{m}$  or that the passivation film has pin holes which are filled..

Uchida discloses a steel plate that is passivated and made corrosion resistant with a chromium layer having pin holes which are filled in/sealed (*figure 5, col. 6, lines 14-29*). The filled pin holes prevent crack formations during general processing (*col. 10, lines 26-30*). The surface roughness of the matte finished initial steel plate is 0.8-3  $\mu\text{m}$  (*col. 10, lines 63-65*). The metallic body surface is deemed to define a continuous boundary between the metallic body and the chromium-oxide deposit.

The exact surface roughness of the metallic material is deemed to be a result effective variable with regard to the adherence of the coating. It would require routine experimentation to determine the optimum value of a result effective variable, such as surface roughness, in the absence of a showing of criticality in the claimed surface roughness. MPEP 2144.05 II B. One of ordinary skill in the art would have been motivated by Uchida to have a surface roughness of 0.8-3  $\mu\text{m}$  in order to achieve a metallic matte surface.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have filed pin holes in the passivation film of Carbo as taught by Uchida in order to prevent crack formations during general processing.

Carbo further fails to disclose that the chromium-oxide deposit consists, i.e. substantially 100% chromium-oxide, of chromium-oxide, at least approximately 30 nm from an outermost surface of the film.

Ohmi discloses a metallic material provided with a chromium oxide passivation film comprising a passivation film consisting of chromium oxide on the metallic material (*col. 2, lines 33-45*). Ohmi further discloses that the improved corrosion resistant properties have been obtained through the use of passivation films consisting of chromium oxide (*col. 2, lines 24-38*).

It would have been obvious to one of ordinary skill in the art to use a chromium oxide as the passivation film in the combination of Carbo and Uchida as taught by Ohmi because of the improved corrosion resistance gained by layer consisting only of chromium oxide. Since the passivation film consists of chromium oxide at least approximately 30 nm from an outermost surface of the chromium-oxide passivation film will consist of 100% chromium-oxide.

The limitation "formed by heating a chromium film coated directly onto the metallic material surface in an oxidizing atmosphere" is a method limitation and does not determine the patentability of the product, unless the process produces unexpected results. The method of forming the product is not germane to the issue of patentability of the product itself, unless Applicant presents evidence from which the Examiner could reasonably conclude that the claimed product differs in kind from those of the prior art. MPEP 2113. Furthermore, there does not appear to be a difference between the prior art structure and the structure resulting from the claimed method because Carbo discloses a chromium-oxide passivation film on the metallic body.

***ANSWERS TO APPLICANT'S ARGUMENTS***

6. Applicant's arguments in the response filed February 2, 2009 regarding the previous rejections of record have been considered but are moot due to the new grounds of rejection.

***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Chevalier whose telephone number is (571) 272-1490. The examiner can normally be reached on Monday through Friday from 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Sample can be reached on (571) 272-1376. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alicia Chevalier/  
Primary Examiner, Art Unit 1794  
5/12/2009